AMENDMENTS TO THE CLAIMS:

The following listing of claims will replace all prior versions and listings of claims in this application.

1-2. (Canceled)

3. (Previously presented) A method for detecting the presence in a subject of a polymorphism associated with familial dysautonomia, said method comprising detecting a T → C change in position 6 of the donor splice site of intron 20 of the gene encoding the IκB kinase-complex-associated protein, wherein said gene encoding the IκB kinase-complex-associated protein is present on chromosome 9q31 and wherein the detection of said T → C change is indicative of said polymorphism associated with familial dysautonomia.

4. (Previously presented) A method for detecting the presence in a subject of a polymorphism associated with familial dysautonomia, said method comprising detecting a G → C transversion of nucleotide 2390 in exon 19 of the gene encoding the IκB kinase-complex-associated protein, wherein said gene encoding the IκB kinase-complex-associated protein is present on chromosome 9q31 and wherein the detection of said G → C transversion is indicative of said polymorphism associated with familial dysautonomia.

5. (Previously presented) The method according to claim 3 or 4, wherein the detection is achieved by single-strand conformational polymorphism (SSCP) analysis.

6. (Original) The method according to claim 5, wherein said SSCP analysis is carried out on a nucleic acid sequence amplified by polymerase chain reaction (PCR).

7. (Original) The method according to claim 6, wherein said nucleic acid sequence is amplified by PCR using one or more oligonucleotide primers selected from the group consisting of:

a) GAGAACAACAAGATTCTGC (SEQ ID NO: 6);

b) AGTCGCAAACAGTACAATGG (SEQ ID NO: 7);

c) GCAGTTAATGGAGAGTGGCT (SEQ ID NO: 8); and

d) ATGCTTGGTACTTGGCTG (SEQ ID NO: 9).

8-13. (Canceled)

14. (Previously presented) A method of detecting a mutation associated with familial dysautonomia, comprising isolating RNA, amplifying the RNA using a primer flanking said mutation, and determining the presence of a mutated RNA associated with familial dysautonomia, wherein said mutation is selected from the group consisting of:

a) a major familial dysautonomia haplotype mutation, which is a T → C change in position 6 of the donor splice site of intron 20 of the gene encoding the IκB kinase-complex-associated protein;

b) a minor familial dysautonomia haplotype mutation, which is a G → C transversion of nucleotide 2390 in exon 19 of the gene encoding the IκB kinase-complex-associated protein; and

c) a combination of a T → C change in position 6 of the donor splice site of intron 20 and a G → C transversion of nucleotide 2390 in exon 19 of the gene encoding the IκB kinase-complex-associated protein.

15. (Previously presented) The method according to claim 14, wherein the mutation is a major familial dysautonomia haplotype mutation, which is a T → C change in position 6 of the donor splice site of intron 20.

16. (Previously presented) The method according to claim 14, wherein the mutation is a minor familial dysautonomia haplotype mutation, which is a G → C transversion of nucleotide 2390 in exon 19.

17. (Previously presented) The method according to claim 14, wherein the mutation is a combination of a T → C change in position 6 of the donor splice site of intron 20 and a G → C transversion of nucleotide 2390 in exon 19.